This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. A method of manufacturing an endoluminal stent capable radially expanding from a first diameter to a second diameter, comprising the steps of:

   a. providing a generally cylindrical, unpatterned, metal substrate having an continuously curved exterior metal surface capable of accommodating metal deposition thereupon;

   b. vacuum depositing a stent-forming metal onto the exterior metal surface of the metal substrate, forming a generally tubular, unpatterned metal film on the exterior metal surface of the metal substrate;

   c. [defining] forming a plurality of openings passing through the deposited [stent-forming metal] generally tubular, unpatterned metal film on the exterior metal surface of the substrate, the plurality of openings forming geometric deformation regions permitting radial expansion of the endoluminal stent; and

   d. removing the metal substrate from the radially expandable endoluminal stent formed thereupon.

Claim 2 (presently amended) The method according to Claim 1, wherein step (a) further comprises the step of imparting a pattern onto the exterior metal surface of the metal substrate.

Claim 3 (original) The method according to Claim 2, wherein step (b) further comprises the step of depositing the stent-forming metal onto the pattern onto the substrate.

Claim 4 (original) The method according to Claim 1, further comprises the step of depositing a sacrificial layer of a material onto the substrate prior to step (b).

Claim 5 (original) The method according to Claim 1, wherein step (b) is conducted by ion beam-assisted evaporative deposition.

Claim 6 (original) The method according to Claim 1, wherein step (b) is conducted by sputtering.

Claim 7 (original) The method according to Claim 5, wherein the ion beam-assisted evaporative deposition is conducted in the presence of an inert gas.

Claims 8-9 (canceled)

Claim 10 (original) The method according to Claim 7 wherein the inert gas is selected from the group consisting of argon, xenon, nitrogen and neon.

Claim 11 (presently amended) A method of making an implantable medical device, comprising the steps of:

(a) providing a substrate having a shaped exterior surface capable of accommodating metal deposition thereupon;

(b) vacuum depositing a biocompatible material onto the shaped exterior surface of the substrate while controlling formation of heterogeneities in surfaces of the biocompatible material;

(c) forming the implantable medical device in the deposited biocompatible material; and

(d) removing the substrate from the formed implantable medical device.

Claims 12-13 (canceled)

Claim 14 (previously added) The method according to Claim 11, wherein step (c) further comprises the step of selective deposition of the biocompatible material onto the substrate.

Claim 15 (previously added) The method according to Claim 11, further comprising the step of depositing a sacrificial layer of a material onto the substrate prior to step (b).

Claim 16 (previously added)) The method according to Claim 11, wherein step (b) is conducted by ion beam-assisted evaporative deposition.

Claim 17 (previously added) The method according to Claim 11, wherein step (b) is conducted by sputtering.

Claim 18 (previously added) The method according to Claim 16, wherein the ion beam-assisted evaporative deposition is conducted in the presence of an inert gas.

Claim 19 (previously added) The method according to Claim 18, wherein the inert gas is selected from the group consisting of argon, xenon, nitrogen and neon.

Claim 20 (previously added) An implantable medical device produced according to the method of Claim 11, wherein the implantable medical device further comprises at least one surface having controlled heterogeneities thereupon.

Claim 21 (previously added) The implantable medical device according to Claim 20, wherein the implantable medical device further comprises an tubular endoluminal stent capable of radially expanding by at least one of shape memory, pseudoelastic, plastic or elastic deformation and having luminal and abluminal surfaces thereof, at least the luminal surface having controlled heterogeneities thereupon.

Claim 22 (previously added) The method according to Claim 11, wherein step (c) further comprises the step of defining a pattern of openings passing through the deposited biocompatible material, the pattern of a plurality of openings defining deformation regions of the biocompatible material capable of undergoing geometric deformation thereby enlarging the pattern of a plurality of openings.

Claim 23 (presently amended) The method according to Claim 11, wherein step (b) further comprises the step of controlling heterogeneities in the [stent-forming metal] biocompatible material during vacuum deposition.

Claim 24 (previously added) The method of Claim 23, wherein the step of controlling heterogeneities further comprises the step of controlling at least one of grain size, grain phase, grain material composition, stent material composition and surface topography during vacuum deposition.

Claim 25. (previously added) The method of Claim 23, wherein the step of controlling heterogeneities further comprises the step of defining polar and non-polar binding sites for binding blood plasma proteins.

Claim 26. (previously added) The method of Claim 11, wherein step (b) further comprises the step of controlling at least one of fatigue life, corrosion resistance, tensile strength and yield strength of the vacuum deposited biocompatible material.